RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/5336324

Source: PCT

Date Processed by STIC: 5/12/5

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RAW SEQUENCE LISTING   DATE: 05/12/2005
PATENT APPLICATION: US/10/533,634   .   TIME: 09:44:23

         Input Set : A:\379604.txt
         Output Set: N:\CRF4\05122005\J533634.raw

   3 <110> APPLICANT: THE UNITED STATES OF AMERICA AS REPRESENTED BY THE
   4   SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
   5   Klinman, Dennis M.
   6   Ivins, Bruce
   7   Verthelyi, Daniela
   9 <120> TITLE OF INVENTION: METHOD OF PREVENTING INFECTIONS FROM BIOTERRORISM AGENTS
WITH
  10   IMMUNOSTIMULATORY CpG OLIGONUCLEOTIDES
  12 <130> FILE REFERENCE: 4239-67021-06
C--> 14 <140> CURRENT APPLICATION NUMBER: US/10/533,634
C--> 14 <141> CURRENT FILING DATE: 2005-04-29
  14 <150> PRIOR APPLICATION NUMBER: PCT/US2003/034523
  15 <151> PRIOR FILING DATE: 2003-10-31
  17 <150> PRIOR APPLICATION NUMBER: US 60/422,964
  18 <151> PRIOR FILING DATE: 2002-11-01
  20 <160> NUMBER OF SEQ ID NOS: 199
  22 <170> SOFTWARE: PatentIn version 3.2
  24 <210> SEQ ID NO: 1
  25 <211> LENGTH: 20
  26 <212> TYPE: DNA
  27 <213> ORGANISM: Artificial sequence
  29 <220> FEATURE:
  30 <223> OTHER INFORMATION: CpG D oligonucleotide
  33 <220> FEATURE:
  34 <221> NAME/KEY: misc_feature
  35 <222> LOCATION: (1)..(2)
  36 <223> OTHER INFORMATION: n is any base, or no base at all
  38 <400> SEQUENCE: 1
W--> 39 nntgcatcga tgcagggggg   20
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  43 <211> LENGTH: 20
  44 <212> TYPE: DNA
  45 <213> ORGANISM: Artificial sequence
  47 <220> FEATURE:
  48 <223> OTHER INFORMATION: CpG D oligonucleotide
  51 <220> FEATURE:
  52 <221> NAME/KEY: misc_feature
  53 <222> LOCATION: (1)..(2)
  54 <223> OTHER INFORMATION: n is any base, or no base at all
  56 <400> SEQUENCE: 2
W--> 57 nntgcaccgg tgcagggggg   .   20
  60 <210> SEQ ID NO: 3
  61 <211> LENGTH: 20
  62 <212> TYPE: DNA

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         65 <220> FEATURE:
         66 <223> OTHER INFORMATION: CpG D oligonucleotide
         69 <220> FEATURE:
         70 <221> NAME/KEY: misc_feature
         71 <222> LOCATION: (1)..(2)
         72 <223> OTHER INFORMATION: n is any base, or no base at all
         74 <400> SEQUENCE: 3
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         79 <211> LENGTH: 20
         80 <212> TYPE: DNA
         81 <213> ORGANISM: Artificial sequence
         83 <220> FEATURE:
         84 <223> OTHER INFORMATION: CpG D oligonucleotide
         87 <220> FEATURE:
         88 <221> NAME/KEY: misc_feature
         89 <222> LOCATION: (1)..(2)
         90 <223> OTHER INFORMATION: n is any base, or no base at all
         92 <400> SEQUENCE: 4
W--> 93 nntgcgtcga tgcagggggg                                         20
         96 <210> SEQ ID NO: 5
         97 <211> LENGTH: 20
         98 <212> TYPE: DNA
         99 <213> ORGANISM: Artificial sequence
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        102 <223> OTHER INFORMATION: CpG D oligonucleotide
        105 <220> FEATURE:
        106 <221> NAME/KEY: misc_feature
        107 <222> LOCATION: (1)..(2)
        108 <223> OTHER INFORMATION: n is any base, or no base at all
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        115 <211> LENGTH: 20
        116 <212> TYPE: DNA
        117 <213> ORGANISM: Artificial sequence
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        123 <220> FEATURE:
        124 <221> NAME/KEY: misc_feature
        125 <222> LOCATION: (1)..(2)
        126 <223> OTHER INFORMATION: n is any base, or no base at all
        128 <400> SEQUENCE: 6
W--> 129 nntgcgccga tgcagggggg                                        20
        132 <210> SEQ ID NO: 7
        133 <211> LENGTH: 20
        134 <212> TYPE: DNA
        135 <213> ORGANISM: Artificial sequence
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     138 <223> OTHER INFORMATION: CpG D oligonucleotide
     141 <220> FEATURE:
     142 <221> NAME/KEY: misc_feature
     143 <222> LOCATION: (1)..(2)
     144 <223> OTHER INFORMATION: n is any base, or no base at all
     146 <400> SEQUENCE: 7
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     150 <210> SEQ ID NO: 8
     151 <211> LENGTH: 20
     152 <212> TYPE: DNA
     153 <213> ORGANISM: Artificial sequence
     155 <220> FEATURE:
     156 <223> OTHER INFORMATION: CpG D oligonucleotide
     159 <220> FEATURE:
     160 <221> NAME/KEY: misc_feature
     161 <222> LOCATION: (1)..(2)
     162 <223> OTHER INFORMATION: n is any base, or no base at all
     164 <400> SEQUENCE: 8
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     169 <211> LENGTH: 6
     170 <212> TYPE: DNA
     171 <213> ORGANISM: Artificial sequence
     173 <220> FEATURE:
     174 <223> OTHER INFORMATION: CpG D oligonucleotide
     176 <400> SEQUENCE: 9
     177 atcgat                                                          6
     180 <210> SEQ ID NO: 10
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     182 <212> TYPE: DNA
     183 <213> ORGANISM: Artificial sequence
     185 <220> FEATURE:
     186 <223> OTHER INFORMATION: CpG D oligonucleotide
     188 <400> SEQUENCE: 10
     189 accggt                                                          6
     192 <210> SEQ ID NO: 11
     193 <211> LENGTH: 6
     194 <212> TYPE: DNA
     195 <213> ORGANISM: Artificial sequence
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     198 <223> OTHER INFORMATION: CpG D oligonucleotide
     200 <400> SEQUENCE: 11
     201 atcgac                                                          6
     204 <210> SEQ ID NO: 12
     205 <211> LENGTH: 6
     206 <212> TYPE: DNA
     207 <213> ORGANISM: Artificial sequence
     209 <220> FEATURE:
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212 <400> SEQUENCE: 12
213 accgat                                                          6
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217 <211> LENGTH: 6
218 <212> TYPE: DNA
219 <213> ORGANISM: Artificial sequence
221 <220> FEATURE:
222 <223> OTHER INFORMATION: CpG D oligonucleotide
224 <400> SEQUENCE: 13
225 gtcgac                                                          6
228 <210> SEQ ID NO: 14
229 <211> LENGTH: 6
230 <212> TYPE: DNA
231 <213> ORGANISM: Artificial sequence
233 <220> FEATURE:
234 <223> OTHER INFORMATION: CpG D oligonucleotide
236 <400> SEQUENCE: 14
237 gccggc                                                          6
240 <210> SEQ ID NO: 15
241 <211> LENGTH: 20
242 <212> TYPE: DNA
243 <213> ORGANISM: Artificial sequence
245 <220> FEATURE:
246 <223> OTHER INFORMATION: CpG D oligonucleotide
248 <400> SEQUENCE: 15
249 ggtgcatcga tacagggggg                                          20
252 <210> SEQ ID NO: 16
253 <211> LENGTH: 20
254 <212> TYPE: DNA
255 <213> ORGANISM: Artificial sequence
257 <220> FEATURE:
258 <223> OTHER INFORMATION: CpG D oligonucleotide
260 <400> SEQUENCE: 16
261 ggtgcgtcga tgcagggggg                                          20
264 <210> SEQ ID NO: 17
265 <211> LENGTH: 15
266 <212> TYPE: DNA
267 <213> ORGANISM: Artificial sequence
269 <220> FEATURE:
270 <223> OTHER INFORMATION: CpG D oligonucleotide
272 <400> SEQUENCE: 17
273 gctagacgtt agcgt                                                15
276 <210> SEQ ID NO: 18
277 <211> LENGTH: 10
278 <212> TYPE: DNA
279 <213> ORGANISM: Artificial sequence
281 <220> FEATURE:
282 <223> OTHER INFORMATION: CpG D oligonucleotide
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285 tcaacgttga                                              10
288 <210> SEQ ID NO: 19
289 <211> LENGTH: 15
290 <212> TYPE: DNA
291 <213> ORGANISM: Artificial sequence
293 <220> FEATURE:
294 <223> OTHER INFORMATION: Control D oligonucleotide
296 <400> SEQUENCE: 19
297 gctagagctt aggct                                        15
300 <210> SEQ ID NO: 20
301 <211> LENGTH: 10
302 <212> TYPE: DNA
303 <213> ORGANISM: Artificial sequence
305 <220> FEATURE:
306 <223> OTHER INFORMATION: Control D oligonucleotide
308 <400> SEQUENCE: 20
309 tcaagcttga                                              10
312 <210> SEQ ID NO: 21
313 <211> LENGTH: 20
314 <212> TYPE: DNA
315 <213> ORGANISM: Artificial sequence
317 <220> FEATURE:
318 <223> OTHER INFORMATION: CpG D oligonucleotide
320 <400> SEQUENCE: 21
321 ggtgcatcga tgcagggggg                                   20
324 <210> SEQ ID NO: 22
325 <211> LENGTH: 20
326 <212> TYPE: DNA
327 <213> ORGANISM: Artificial sequence
329 <220> FEATURE:
330 <223> OTHER INFORMATION: CpG D oligonucleotide
332 <400> SEQUENCE: 22
333 ggtgcaccgg tgcagggggg                                   20
336 <210> SEQ ID NO: 23
337 <211> LENGTH: 20
338 <212> TYPE: DNA
339 <213> ORGANISM: Artificial sequence
341 <220> FEATURE:
342 <223> OTHER INFORMATION: CpG D oligonucleotide
344 <400> SEQUENCE: 23
345 atcgactctc gagcgttctc                                   20
348 <210> SEQ ID NO: 24
349 <211> LENGTH: 12
350 <212> TYPE: DNA
351 <213> ORGANISM: Artificial sequence
353 <220> FEATURE:
354 <223> OTHER INFORMATION: CpG D oligonucleotide
356 <400> SEQUENCE: 24
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Input Set : A:\379604.txt
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<u>Please Note:</u>
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

```
Seq#:1; N Pos. 1,2
Seq#:2; N Pos. 1,2
Seq#:3; N Pos. 1,2
Seq#:4; N Pos. 1,2
Seq#:5; N Pos. 1,2
Seq#:6; N Pos. 1,2
Seq#:7; N Pos. 1,2
Seq#:8; N Pos. 1,2
Seq#:44; N Pos. 1,2,3,10,11,12
Seq#:45; N Pos. 1,2,3,10,11,12,13
Seq#:46; N Pos. 1,2,3,10,11,12,13,14
Seq#:47; N Pos. 1,2,3,10,11,12,13,14,15
Seq#:48; N Pos. 1,2,3,10,11,12,13,14,15,16
Seq#:49; N Pos. 1,2,3,10,11,12,13,14,15,16,17
Seq#:50; N Pos. 1,2,3,10,11,12,13,14,15,16,17,18
Seq#:51; N Pos. 1,2,3,10,11,12,13,14,15,16,17,18,19
Seq#:52; N Pos. 1,2,3,10,11,12,13,14,15,16,17,18,19,20
Seq#:53; N Pos. 1,2,3,10,11,12,13,14,15,16,17,18,19,20,21
Seq#:54; N Pos. 1,2,3,10,11,12,13,14,15,16,17,18,19,20,21,22
Seq#:55; N Pos. 1,2,3,10,11,12
Seq#:56; N Pos. 1,2,3,10,11,12,13
Seq#:57; N Pos. 1,2,3,10,11,12,13,14
Seq#:58; N Pos. 1,2,3,10,11,12,13,14,15
Seq#:59; N Pos. 1,2,3,10,11,12,13,14,15,16
Seq#:60; N Pos. 1,2,3,10,11,12,13,14,15,16,17
Seq#:61; N Pos. 1,2,3,10,11,12,13,14,15,16,17,18
Seq#:62; N Pos. 1,2,3,10,11,12,13,14,15,16,17,18,19
Seq#:63; N Pos. 1,2,3,10,11,12,13,14,15,16,17,18,19,20
Seq#:64; N Pos. 1,2,3,10,11,12,13,14,15,16,17,18,19,20,21
Seq#:65; N Pos. 1,2,3,10,11,12,13,14,15,16,17,18,19,20,21,22
Seq#:66; N Pos. 1,2,3,10,11,12
Seq#:67; N Pos. 1,2,3,10,11,12,13
Seq#:68; N Pos. 1,2,3,10,11,12,13,14
Seq#:69; N Pos. 1,2,3,10,11,12,13,14,15
Seq#:70; N Pos. 1,2,3,10,11,12,13,14,15,16
Seq#:71; N Pos. 1,2,3,10,11,12,13,14,15,16,17
Seq#:72; N Pos. 1,2,3,10,11,12,13,14,15,16,17,18
Seq#:73; N Pos. 1,2,3,10,11,12,13,14,15,16,17,18,19
Seq#:74; N Pos. 1,2,3,10,11,12,13,14,15,16,17,18,19,20
Seq#:75; N Pos. 1,2,3,10,11,12,13,14,15,16,17,18,19,20,21
Seq#:76; N Pos. 1,2,3,10,11,12,13,14,15,16,17,18,19,20,21,22
Seq#:77; N Pos. 1,2,3,10,11,12
Seq#:78; N Pos. 1,2,3,10,11,12,13
Seq#:79; N Pos. 1,2,3,10,11,12,13,14
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Input Set : **A:\379604.txt**
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Seq#:80; N Pos. 1,2,3,10,11,12,13,14,15
Seq#:81; N Pos. 1,2,3,10,11,12,13,14,15,16
Seq#:82; N Pos. 1,2,3,10,11,12,13,14,15,16,17
Seq#:83; N Pos. 1,2,3,10,11,12,13,14,15,16,17,18
Seq#:84; N Pos. 1,2,3,10,11,12,13,14,15,16,17,18,19
Seq#:85; N Pos. 1,2,3,10,11,12,13,14,15,16,17,18,19,20
Seq#:86; N Pos. 1,2,3,10,11,12,13,14,15,16,17,18,19,20,21
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Input Set : **A:\379604.txt**
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L:14 M:270 C: Current Application Number differs, Replaced Current Application No
L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:39 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:57 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:75 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:93 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:111 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:129 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
L:147 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:165 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:608 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:0
L:631 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:0
L:654 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0
L:677 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0
L:700 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0
L:723 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:0
L:746 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:0
L:769 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:0
L:792 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:0
L:815 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53 after pos.:0
L:838 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:54 after pos.:0
L:861 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:0
L:884 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:0
L:907 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57 after pos.:0
L:930 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58 after pos.:0
L:953 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:0
L:976 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:0
L:999 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:0
L:1022 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:0
L:1045 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:0
L:1068 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:64 after pos.:0
L:1091 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65 after pos.:0
L:1114 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:0
L:1137 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67 after pos.:0
L:1160 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:68 after pos.:0
L:1183 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:69 after pos.:0
L:1206 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:70 after pos.:0
L:1229 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:71 after pos.:0
L:1252 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72 after pos.:0
L:1275 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:73 after pos.:0
L:1298 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:74 after pos.:0
L:1321 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75 after pos.:0
L:1344 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:0
L:1367 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:77 after pos.:0
L:1390 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:78 after pos.:0
L:1413 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:79 after pos.:0
L:1436 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:80 after pos.:0
L:1459 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:81 after pos.:0

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L:1482 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:82 after pos.:0
L:1505 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:83 after pos.:0
L:1528 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84 after pos.:0
L:1551 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:85 after pos.:0
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